

ABSTRACT OF THE DISCLOSURE

A monocentric arrangement of optical components providing stereoscopic display of a virtual image, electronically generated, line by line, from an electromechanical grating light modulator (85) and projected, as a real 5 intermediate image, near the focal surface (22) of a curved mirror (24) by means of a scanning ball lens assembly (100). To form each left and right intermediate image component, a separate image generation system (70) comprises a scanning ball lens assembly (100) comprising a spherical lens (46) for wide field of view and a reflective surface (102). A monocentric arrangement of optical components 10 images the left and right scanning ball lens pupil at the corresponding left and right viewing pupil (14) of the observer (12) and essentially provides a single center of curvature for projection components. Use of such a monocentric arrangement with electromechanical grating light modulator (85) as a linear image source and scanning ball lens assemblies (100) provides an exceptionally wide 15 field of view with large viewing pupil (14).